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10/560,953	04/26/2007	Beverly L. Wolgast	10426.0064-00000 64.US2.P	1700
69419	7590	08/17/2010	EXAMINER	
ARENA PHARMACEUTICALS INC./FINNEGAN HENDERSON LLP 901 NEW YORK AVE, NW WASHINGTON, DC 20001-4413			COLEMAN, BRENDA LIBBY	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/560,953	<b>Applicant(s)</b> WOLGAST ET AL.	
	<b>Examiner</b> Brenda L. Coleman	<b>Art Unit</b> 1624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) 28-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 and 42-65 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>See Continuation Sheet</u> .                                  | 6) <input type="checkbox"/> Other: _____                          |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :8/28/2007, 11/10/2008, 6/8/2010.

### **DETAILED ACTION**

Claims 1-65 are pending in the application.

#### ***Election/Restrictions***

1. Applicant's election without traverse of Group I in the reply filed on June 8, 2010 is acknowledged.
2. Claims 28-41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on June 8, 2010.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 60 and 61 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

In evaluating the enablement question, several factors are to be considered. In *re Wands*, 8 USPQ2d 1400 (Fed. Cir. 1988); *Ex parte Forman*, 230 USPQ 546. The

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factors include: 1) The nature of the invention, 2) the state of the prior art, 3) the predictability or lack thereof in the art, 4) the amount of direction or guidance present, 5) the presence or absence of working examples, 6) the breadth of the claims, and 7) the quantity of experimentation needed.

The nature of the invention in the instant case, has claims which embrace 3-benzazepine compounds of the formulae Va and Vb.

HOW TO USE: The scope of diseases and/or conditions associated with the modulation of the 5HT<sub>2C</sub> receptor cannot be deemed enabled. Claims 60 and 61 are to a method of modulating a 5HT<sub>2C</sub> receptor and a method of treating a 5HT<sub>2C</sub> receptor disorder. Any evidence presented must be commensurate in scope with the claims and must clearly demonstrate the effectiveness of the claimed compounds. The scope of claims 60 and 61 includes diseases and/or conditions not even known at this time, which may be associated with serotonin receptor activity. While the treatment of obesity has been linked with 5HT<sub>2C</sub> in the art does not recognize use of such inhibitors as broad based drugs for treating all disorders instantly embraced.

In view of the lack of direction provided in the specification regarding starting materials, the lack of working examples, and the general unpredictability of chemical reactions, it would take an undue amount of experimentation for one skilled in the art to make the claimed compounds and therefore practice the invention. To be enabling, the specification of a patent must teach those skilled in the art how to make and use the scope of the claimed invention without undue experimentation. The applicants' are not entitled to preempt the efforts of others. The test for determining compliance with 35

U.S.C. § 112, is whether the applicants have clearly defined their invention.

Where the utility is unusual or difficult to treat or speculative, the examiner has authority to require evidence that tests relied upon are reasonably predictive of in vivo efficacy by those skilled in the art. See *In re Ruskin*, 148 USPQ 221, Ex parte Jovanovics, 21 1 USPQ 907, MPEP 2164.05(a).

Patent Protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable. Tossing out the mere germ of an idea does not constitute enabling disclosure. *Genentech Inc. v. Novo Nordisk* 42 USPQZd 1001.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-6, 8-12, 14-20, 22-26, 42-45, 47-50, 52-55, 58 and 60-65 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following reasons apply:

- a. Claims 1, 8, 14, 22, 42, 47, 54 and claims dependent thereon are vague and indefinite in that it is not known what is meant by the definition of R<sup>9</sup> where R<sup>9</sup> is C<sub>1</sub> alkenyl or C<sub>1</sub> alkynyl.
- b. Claims 1, 8, 14, 22, 42, 47, 54 and claims dependent thereon are vague and indefinite in that it is not known what is meant by the definition of R<sup>10</sup> and R<sup>11</sup> where R<sup>10</sup> and R<sup>11</sup> is C<sub>1</sub> alkenyl or C<sub>1</sub> alkynyl.

c. Claims 60 and 61 are vague and indefinite in that the claim provides for the use of claimed compounds, but the claim does not set forth any steps involved in determining, which are the disorders capable of being treated by modulating the activity of 5HT<sub>2C</sub> receptors. Determining whether a given disease responds or does not respond to such an inhibitor will involve undue experimentation. Suppose that a given drug, which has inhibitor properties in vitro, when administered to a patient with a certain disease, does not produce a favorable response. One cannot conclude that specific disease does not fall within this claim. Keep in mind that:

A. It may be that the next patient will respond. No pharmaceutical has 100% efficacy. What success rate is required to conclude our drug is a treatment? Thus, how many patients need to be treated? If “successful treatment” is what is intended, what criterion is to be used? If one person in 10 responds to a given drug, does that mean that the disease is treatable? One in 100? 1,000? 10,000? Will the standard vary depending on the current therapy for the disease?

B. It may be that the wrong dosage or dosage regimen was employed. Drugs with similar chemical structures can have markedly different pharmacokinetics and metabolic fates. It is quite common for pharmaceuticals to work and or be safe at one dosage, but not at another that is significantly higher or lower. Furthermore, the dosage regimen may be vital --- should the drug be given e.g. once a day, or four times in divided dosages? The optimum route of

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administration cannot be predicted in advance. Should our drug be given as a bolus iv or in a time release po formulation. Thus, how many dosages and dosage regimens must be tried before one is certain that our drug is not a treatment for this specific disease?

C. It may be that our specific drug, while active in vitro, simply is not potent enough or produces such low concentrations in the blood that it is not an effective treatment of the specific disease. Perhaps a structurally related drug is potent enough or produces high enough blood concentrations to treat the disease in question, so that the first drug really does fall within the claim. Thus, how many different structurally related inhibitors must be tried before one concludes that a specific compound does not fall within the claim?

D. Conversely, if the disease responds to our second drug but not to the first, both of which are inhibitors in vitro, can one really conclude that the disease falls within the claim? It may be that the first compound result is giving the accurate answer, and that the success of second compound arises from some other unknown property, which the second drug is capable. It is common for a drug, particularly in analgesics, to work by many mechanisms. The history of psychopharmacology is filled with drugs, which were claimed to be a pure receptor XYX agonist or antagonist, but upon further experimentation shown to affect a variety of biological targets. In fact, the development of a drug for a specific disease and the determination of its biological site of action usually precede linking that site of action with the disease. Thus, when mixed results are



obtained, how many more drugs need be tested?

E. Suppose that our drug is an effective treatment of the disease of interest, but only when combined with some totally different drug. There are for example, agents in antiviral and anticancer chemotherapy, which are not themselves effective, but are effective treatments when the agents are combined with something else.

Consequently, determining the true scope of the claim will involve extensive and potentially inconclusive research. Without it, one skilled in the art cannot determine the actual scope of the claim. Hence, the claim is indefinite.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

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directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 42-45, 47-50, 52-55 and 58-65 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith et al., U.S. 7,704,993. Smith teaches the compounds, compositions and method of use of the compounds of formulae Va and Vb where instant R<sup>1</sup> is H or methyl; R<sup>2</sup> is methyl; R<sup>3</sup> is H, Cl, F or Br; R<sup>4</sup> is H or Cl; R<sup>5</sup> is H or Cl; R<sup>6</sup> is H, Cl or F; and R<sup>8a</sup> and R<sup>8b</sup> are both H as set forth in Table 2 and examples 3.1 through 3.11.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

6. Claims 42-65 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith et al., U.S. 6,953,787. Smith teaches the compounds, compositions and method of use of the compounds of formulae Va and Vb where instant R<sup>1</sup> is H, n-propyl or methyl; R<sup>2</sup> is methyl, ethyl, isopropyl, CH<sub>2</sub>OH, CH<sub>2</sub>OMe, etc.; R<sup>3</sup> is H; R<sup>4</sup> is H, Cl, F, I, Br, CN, thienyl, CF<sub>3</sub>, etc.; R<sup>5</sup> is H, F, Cl, OH, MeO, EtO, isopropoxy, CF<sub>3</sub>O, CH<sub>2</sub>=CH-CH<sub>2</sub>-O-, Ph-CH<sub>2</sub>-O-, 2-methyl-pyrazole, etc.; R<sup>6</sup> is H; and R<sup>8a</sup> and R<sup>8b</sup> are both H as set forth in examples 1-12, 14-16, 18-23, 26-54, etc.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 42-45, 47-50, 52-55 and 58-65 are rejected under 35 U.S.C. 103(a) as being obvious over Smith et al., U.S. 7,704,993. The generic structure of the Smith encompasses the instantly claimed compounds (see Formula (I) in column 7) and for the same uses as claimed herein. Examples in Table 2 and examples 3.1 through 3.11, which anticipates the compounds of the instant invention differ only in the substituents R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup>. Column 7, lines 29-38 defines the substituents R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup> as follows: R<sup>1</sup> is H or C<sub>1-8</sub> alkyl; R<sup>2</sup> is C<sub>1-4</sub> alkyl, -CH<sub>2</sub>-O-C<sub>1-4</sub> alkyl, -C<sub>1-4</sub> haloalkyl or CH<sub>2</sub>OH; R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup> are each independently H, C<sub>1-4</sub> alkyl, amino, cyano, halogen, C<sub>1-4</sub> haloalkyl, nitro or OH; or a pharmaceutically acceptable salt thereof provided that when R<sup>2</sup> is C<sub>1-4</sub> alkyl, -CH<sub>2</sub>-O-C<sub>1-4</sub> alkyl or CH<sub>2</sub>OH; then R<sup>3</sup> and R<sup>6</sup>

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are not both hydrogen. The compounds of the instant invention are generically embraced by Smith in view of the interchangeability of the substitutions of the benzazepine ring. Thus, one of ordinary skill in the art at the time the invention was made would have been motivated to select for example chloro as well as other possibilities from the generically disclosed alternatives of the reference and in so doing obtain the instant compounds in view of the equivalency teachings outlined above.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

8. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al., U.S. 7,704,993 as applied to claims 42-65 above, and further in view of

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Borowski et al., U.S. 4,541,954. Smith teaches the compounds of the instant invention as set forth in the anticipation and obviousness rejections stated above. Borowski teaches the process of preparing 3-benzazepine compounds by reacting the compounds of formula I to get the compounds of formula II which is then reacted with  $\text{AlCl}_3$  to obtain the substituted 3-benzazepine.

9. Claims 42-65 are rejected under 35 U.S.C. 103(a) as being obvious over Smith et al., U.S. 6,953,787. The generic structure of the Smith encompasses the instantly claimed compounds (see Formula (I) in column 3) and for the same uses as claimed herein. Examples 1-12, 14-16, 18-23, 26-54, which anticipates the compounds of the instant invention differ only in the substituents  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^4$ ,  $\text{R}^5$  and  $\text{R}^6$ . Column 3, lines 33-64 defines the substituents  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^4$ ,  $\text{R}^5$  and  $\text{R}^6$  as follows:  $\text{R}^1$  is H or  $\text{C}_{1-8}$  alkyl;  $\text{R}^2$  is  $\text{C}_{1-8}$  alkyl,  $-\text{CH}_2-\text{O}-\text{C}_{1-8}$  alkyl,  $-\text{C}(=\text{O})-\text{O}-\text{C}_{1-8}$  alkyl,  $-\text{C}(=\text{O})-\text{NH}-\text{C}_{1-8}$  alkyl, OH or  $\text{CH}_2\text{OH}$ ;  $\text{R}^3$  is H;  $\text{R}^4$  is halogen, perhaloalkyl, CN,  $\text{SR}_5$ ,  $\text{NHR}_5$ ,  $\text{N}(\text{R}_5)_2$ , aryl or heteroaryl, wherein said aryl can be optionally substituted with up to two substituents selected from  $\text{C}_{1-8}$  alkyl, halogen, perhalo alkyl, and alkoxy, and said heteroaryl can be optionally substituted with up to two substituents selected from halogen and  $\text{C}_{1-8}$  alkyl;  $\text{R}^5$  is H, halogen, perhaloalkyl, CN,  $\text{SR}_5$ ,  $\text{NHR}_5$ ,  $\text{N}(\text{R}_5)_2$ , aryl, or heteroaryl, wherein said aryl can be optionally substituted with up to two substituents selected from  $\text{C}_{1-8}$  alkyl, halogen, perhalo alkyl, and alkoxy, and said heteroaryl can be optionally substituted with up to two substituents selected from halogen and  $\text{C}_{1-8}$  alkyl; and  $\text{R}^6$  is H. The compounds of the instant invention are generically embraced by Smith in view of the interchangeability of the substitutions of the benzazepine ring. Thus, one of ordinary skill in the art at the

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time the invention was made would have been motivated to select for example chloro as well as other possibilities from the generically disclosed alternatives of the reference and in so doing obtain the instant compounds in view of the equivalency teachings outlined above.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

10. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al., U.S. 7,704,993 as applied to claims 42-65 above, and further in view of Borowski et al., U.S. 4,541,954. Smith teaches the compounds of the instant invention as set forth in the anticipation and obviousness rejections stated above. Borowski

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teaches the process of preparing 3-benzazepine compounds by reacting the compounds of formula I to get the compounds of formula II which is then reacted with  $\text{AlCl}_3$  to obtain the substituted 3-benzazepine.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 42-65 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 75-104 of copending Application No. 12/729,026. Although the conflicting claims are not identical, they are not patentably distinct from each other because the compounds, compositions and method of use of the compounds of formulae Va and Vb embrace the compounds, compositions and method of use of the compounds of formula I where R<sub>1</sub> is H or C<sub>1-8</sub> alkyl; R<sub>2</sub> is C<sub>1-4</sub> alkyl, -CH<sub>2</sub>-O-C<sub>1-4</sub> alkyl, C<sub>1-4</sub> haloalkyl or CH<sub>2</sub>OH; and R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub> are each independently H, C<sub>1-4</sub> alkyl, amino, cyano, halogen, C<sub>1-4</sub> haloalkyl, nitro or OH.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. Claims 54, 55, 58 and 60-65 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 26-31 of copending Application No. 11/793,473. Although the conflicting claims are not identical, they are not patentably distinct from each other because the compounds and method of use of the compounds of formulae Va and Vb embrace the compounds and method of use of the compound (R)-8-chloro-1-methyl-2,3,4,5-tetrahydro-1H-3-benzazepine.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.



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13. Claims 42, 45 and 46 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 22 of copending Application No. 12/225,966. Although the conflicting claims are not identical, they are not patentably distinct from each other because the method of resolving a mixture of the compounds of formulae Va and Vb embrace the compounds and method of resolving a mixture of the compounds of formulae Ia and Ib where the compounds are the (R) and (S) enantiomers of (R)-8-chloro-1-methyl-2,3,4,5-tetrahydro-1H-3-benzazepine.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

14. Claims 47-65 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-26 of copending Application No. 10/573,196. Although the conflicting claims are not identical, they are not patentably distinct from each other because the compounds, compositions and method of use of the compounds of formulae Va and Vb embrace the compounds, compositions and method of use of the compounds of formula I where R<sup>1</sup> is H or C<sub>1-8</sub> alkyl; R<sup>2</sup> is C<sub>1-8</sub> alkyl; R<sup>3</sup> is H, arylalkyl-O-, arylalkyl-N(R<sup>5</sup>)-, aryl-N(R<sup>5</sup>)-, or heteroaryl; or R<sup>3</sup> is aryl which is optionally substituted with up to two substituents selected from C<sub>1-8</sub> alkyl, halogen, perhaloalkyl, and alkoxy; R<sup>4</sup> is H, arylalkyl-O-, alkoxy, or aryloxy; and R<sup>5</sup> is H, C<sub>1-8</sub> alkyl, aryl, C<sub>2-8</sub> alkenyl, heteroaryl, arylalkyl, heteroarylalkyl, perhaloalkyl, or allyl; with the provisos: a) at least one of R<sup>3</sup> and R<sup>4</sup> is other than H; b) when R<sup>3</sup> is arylalkyl-N(R<sup>5</sup>)- or aryl-N(R<sup>5</sup>)- and R<sup>4</sup> is H, then R<sup>1</sup> is H; c) when R<sup>1</sup> is H, R<sup>2</sup> is CH<sub>3</sub> and

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R<sup>3</sup> is 2-chlorophenyl, then R<sup>4</sup> is other than H; and d) when R<sup>1</sup> is H, R<sup>2</sup> is CH<sub>3</sub> and R<sup>3</sup> is 2-thienyl, then R<sup>4</sup> is other than methoxy.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

15. Claims 42-65 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of copending Application No. 11/599,050. Although the conflicting claims are not identical, they are not patentably distinct from each other because the compounds, compositions and method of use of the compounds of formulae Va and Vb embrace the compounds, compositions and method of use of the compounds of formula I where R<sub>1</sub> is H or C<sub>1-8</sub> alkyl; R<sub>2</sub> is C<sub>1-8</sub> alkyl, -CH<sub>2</sub>-O-C<sub>1-8</sub> alkyl, -C(=O)-O-C<sub>1-8</sub> alkyl, -C(=O)-NH-C<sub>1-8</sub> alkyl, OH or CH<sub>2</sub>OH; R<sub>2a</sub> is H; or R<sub>2</sub> and R<sub>2a</sub> together form -CH<sub>2</sub>-CH<sub>2</sub>-; R<sub>3</sub> is halogen, perhaloalkyl, CN, SR<sub>5</sub>, NHR<sub>5</sub>, N(R<sub>5</sub>)<sub>2</sub>, aryl or heteroaryl, wherein said aryl can be optionally substituted with up to two substituents selected from C<sub>1-8</sub> alkyl, halogen, perhalo alkyl, and alkoxy, and said heteroaryl can be optionally substituted with up to two substituents selected from halogen and C<sub>1-8</sub> alkyl; R<sub>4</sub> is H, halogen, perhaloalkyl, CN, OR<sub>5</sub>, SR<sub>5</sub>, NHR<sub>5</sub>, N(R<sub>5</sub>)<sub>2</sub>, OH, aryl, or heteroaryl, wherein said aryl can be optionally substituted with up to two substituents selected from C<sub>1-8</sub> alkyl, halogen, perhalo alkyl, and alkoxy, and said heteroaryl can be optionally substituted with up to two substituents selected from halogen and C<sub>1-8</sub> alkyl; or R<sub>3</sub> and R<sub>4</sub> together with the atoms to which they are attached can form a 5- or 6-member heterocyclic ring having one O atom; each R<sub>5</sub> is independently C<sub>1-8</sub> alkyl, C<sub>1-8</sub> alkenyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl or

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perhaloalkyl, or allyl; and  $R_6$  is H or  $C_{1-8}$  alkyl; wherein heteroaryl is a 5- or 6-membered aromatic ring and contains from one to four heteroatoms selected from O, N, and S; or a pharmaceutically acceptable salt, solvate or hydrate thereof provided that: (B) if  $R_6$  is other than H, then  $R_4$  cannot be H; (C) if  $R_1$  and  $R_2$  are methyl, and  $R_4$  is H, then  $R_3$  cannot be  $NHR_5$  or  $N(R_5)_2$ ; and (D) if  $R_1$  and  $R_2$  are methyl, and  $R_4$  is H, then  $R_3$  cannot be imidazole, substituted imidazole, or an imidazole derivative.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

16. Claims 42-45, 47-50, 52-55 and 58-65 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 26-39 of U.S. Patent No. 7,704,993. Although the conflicting claims are not identical, they are not patentably distinct from each other because the compounds, compositions and method of use of the compounds of formula Va and Vb are embraced by the compounds, compositions and method of use of the compounds of formula I where  $R_1$  is H or  $C_{1-8}$  alkyl;  $R_2$  is  $C_{1-4}$  alkyl,  $-CH_2-O-C_{1-4}$  alkyl,  $-C_{1-4}$  haloalkyl or  $CH_2OH$ ;  $R_3$ ,  $R_4$ ,  $R_5$  and  $R_6$  are each independently H,  $C_{1-4}$  alkyl, amino, cyano, halogen,  $C_{1-4}$  haloalkyl, nitro or OH; or a pharmaceutically acceptable salt thereof provided that when  $R_2$  is  $C_{1-4}$  alkyl,  $-CH_2-O-C_{1-4}$  alkyl or  $CH_2OH$ ; then  $R_3$  and  $R_6$  are not both hydrogen.

17. Claims 60-65 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-54 of U.S. Patent No. 7,514,422. Although the conflicting claims are not identical, they are not patentably distinct from

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each other because the method of use of the compounds of formula Va and Vb are embraced by the method of use of the compounds of formula I where R<sub>1</sub> is H or C<sub>1-8</sub> alkyl; R<sub>2</sub> is C<sub>1-8</sub> alkyl, -CH<sub>2</sub>-O-C<sub>1-8</sub> alkyl, -C(=O)-O-C<sub>1-8</sub> alkyl, -C(=O)-NH-C<sub>1-8</sub> alkyl, OH or CH<sub>2</sub>OH; R<sub>2a</sub> is H; or R<sub>2</sub> and R<sub>2a</sub> together form -CH<sub>2</sub>-CH<sub>2</sub>-; R<sub>3</sub> and R<sub>4</sub> are each independently H, halogen, perhaloalkyl, CN, OR<sub>5</sub>, SR<sub>5</sub>, NHR<sub>5</sub>, N(R<sub>5</sub>)<sub>2</sub>, OH, aryl or heteroaryl, wherein said aryl can be optionally substituted with up to two substituents selected from C<sub>1-8</sub> alkyl, halogen, perhaloalkyl, and alkoxy, and said heteroaryl can be optionally substituted with up to two substituents selected from halogen and C<sub>1-8</sub> alkyl; or R<sub>3</sub> and R<sub>4</sub> together with the atoms to which they are attached can form a 5- or 6-member heterocyclic ring having one O atom; each R<sub>5</sub> is independently R<sub>5</sub> is independently C<sub>1-8</sub> alkyl, C<sub>1-8</sub> alkenyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl or perhaloalkyl, or allyl; and R<sub>6</sub> is H or C<sub>1-8</sub> alkyl; or a pharmaceutically acceptable salt, solvate or hydrate thereof provided that: (A) if R<sub>2</sub> is methyl and R<sub>1</sub> and R<sub>3</sub> are both H, then R<sub>4</sub> is not thiazole, substituted thiazole or a thiazole derivative; (B) if R<sub>6</sub> is other than H, then neither R<sub>3</sub> nor R<sub>4</sub> can be H; (C) if R<sub>1</sub> and R<sub>2</sub> are methyl, and R<sub>4</sub> is H, then R<sub>3</sub> cannot be NHR<sub>5</sub> or N(R<sub>5</sub>)<sub>2</sub>; and (D) if R<sub>1</sub> and R<sub>2</sub> are methyl, and R<sub>4</sub> is H, then R<sub>3</sub> cannot be imidazole, substituted imidazole, or an imidazole derivative; and (E) if R<sub>3</sub> is OH, and R<sub>1</sub> is methyl then R<sub>2</sub> cannot be cyclopentyl, -CH<sub>2</sub>-cyclohexyl, cyclopropylmethyl, or cyclohexyl.

18. Claims 42-65 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-77 of U.S. Patent No. 6,953,787. Although the conflicting claims are not identical, they are not patentably distinct from

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each other because the method of use of the compounds of formula Va and Vb are embraced by the method of use of the compounds of formula I where  $R_1$  is H or  $C_{1-8}$  alkyl;  $R_2$  is  $C_{1-8}$  alkyl,  $-CH_2-O-C_{1-8}$  alkyl,  $-C(=O)-O-C_{1-8}$  alkyl,  $-C(=O)-NH-C_{1-8}$  alkyl, OH or  $CH_2OH$ ;  $R_{2a}$  is H; or  $R_2$  and  $R_{2a}$  together form  $-CH_2-CH_2-$ ;  $R_3$  is halogen, perhaloalkyl, CN,  $SR_5$ ,  $NHR_5$ ,  $N(R_5)_2$ , aryl or heteroaryl, wherein said aryl can be optionally substituted with up to two substituents selected from  $C_{1-8}$  alkyl, halogen, perhalo alkyl, and alkoxy, and said heteroaryl can be optionally substituted with up to two substituents selected from halogen and  $C_{1-8}$  alkyl;  $R_4$  is H, halogen, perhaloalkyl, CN,  $SR_5$ ,  $NHR_5$ ,  $N(R_5)_2$ , aryl, or heteroaryl, wherein said aryl can be optionally substituted with up to two substituents selected from  $C_{1-8}$  alkyl, halogen, perhalo alkyl, and alkoxy, and said heteroaryl can be optionally substituted with up to two substituents selected from halogen and  $C_{1-8}$  alkyl; each  $R_5$  is independently  $C_{1-8}$  alkyl,  $C_{1-8}$  alkenyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl or perhaloalkyl, or allyl; and  $R_6$  is H or  $C_{1-8}$  alkyl; wherein heteroaryl is pyrrolyl, pyrazolyl, imidazolyl, triazolyl, tetrazolyl, pyridyl, pyrimidinyl, furanyl, pyranal, thienyl, benzimidazolyl, quinolinyl, isoquinolinyl, oxazolyl, thiazolyl or thiadiazolyl; or a pharmaceutically acceptable salt, solvate or hydrate thereof provided that: (B) if  $R_6$  is other than H, then neither  $R_3$  nor  $R_4$  can be H; (C) if  $R_1$  and  $R_2$  are methyl, and  $R_4$  is H, then  $R_3$  cannot be  $NHR_5$  or  $N(R_5)_2$ ; and (D) if  $R_1$  and  $R_2$  are methyl, and  $R_4$  is H, then  $R_3$  cannot be imidazole, substituted imidazole, or an imidazole derivative.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda L. Coleman whose telephone number is 571-272-0665. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brenda L. Coleman/  
Primary Examiner, Art Unit 1624